



Docket: 11811/US/2

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor:

Peter J. Schiller

Application No.:

10/636,054

Filing Date:

Title:

August 7, 2003

Solid-State Rotational Rate Sensor

**Device and Method** 

Examiner:

Group Art Unit:

2834

## PRELIMINARY AMENDMENT

Commissioner for Patents P. O. Box 1450 Alexandria, VA 22313-1450 I hereby certify that this document is being sent via First Class U.S. mail addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 20 day of August, 2004.

Barbara A. Avery

Dear Sir:

Please amend the claims as follows:

- 1. (Currently Amended) A solid-state device having a thin-film piezoelectric material forming a plurality of piezoelectric elements on an integrated silicon chip, a first set of the plurality of piezoelectric elements generating a force, and a second set of the plurality of piezoelectric elements generating an electrical signal in proportion to both the force and a rate of rotation of the solid-state device while rejecting spurious noise.
  - 2. (Currently Amended) A solid-state rotational rate sensor device, comprising: an integrated silicon chip;
  - a first set of piezoelectric elements on the silicon chip;
  - a second set of piezoelectric elements on the silicon chip;

wherein the first set of piezoelectric elements including a piezoelectric material and being actuated by an electrical signal, wherein when the electrical signal is applied on the piezoelectric